

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently amended) A material separation screen, comprising:

multiple elongated members ~~shafts~~ aligned along a separation screen frame and configured to rotate in a direction causing ~~paper products~~ materials to move along the separation screen, the ~~members~~ ~~shafts~~ configured with a shape and spacing so that substantially rigid ~~pieces of the paper products~~ materials move along the screen while non-rigid or semi-rigid ~~pieces of the paper products~~ materials slide down between adjacent ~~members~~ ~~shafts~~.

2. (New) The material separation screen according to claim 1 wherein the members have a round cross-sectional shape with a substantially smooth outside surface.

3. (New) The material separation screen according to claim 1 including at least one vacuum member that includes input holes configured to suck air for retaining some of the non-rigid materials.

4. (New) The material separation screen according to claim 1 wherein the vacuum member includes output holes configured to blow air for dislodging the non-rigid materials retained by the input holes.

5. (New) The material separation screen according to claim 4 including a divider located inside the vacuum member configured to separate the input holes from the output holes.

6. (New) The material separation screen according to claim 1 including discs located on at least some of the members.

7. (New) The material separation screen according to claim 6 wherein the discs have multiple sides that maintain a substantially constant spacing with discs on adjacent members.

8. (New) The material separation screen according to claim 6 wherein at least some of the discs are dual diameter discs having a primary disc with a first outside perimeter and a secondary disc with a second outside perimeter smaller than the first outside perimeter.

9. (New) The material separation screen according to claim 8 wherein the primary disc on a first member is aligned with the secondary disc on a second adjacent member and the secondary disc on the first member is aligned with the primary disc on the second adjacent member.

10. (New) The material separation screen according to claim 9 wherein the dual diameter discs are aligned to form an overlapping stair stepped gap between dual diameter discs on adjacent members.

11. (New) A method for separating materials, comprising:
loading materials onto a screen having one or more air shafts;
moving the materials over the screen; and
sucking air through holes in at least some of the air shafts to retain certain flexible materials and keep those flexible materials from sliding down through the screen.

12. (New) The method of claim 11 including blowing air through other holes in at least some of the air shafts to dislodge the retained materials.

13. (New) The method of claim 11 including moving the materials up and down while also moving the materials along the screen.

14. (New) The method of claim 11 including providing discs that maintain a substantially constant spacing with discs on adjacent shafts while being rotated.

15. (New) The method of claim 14 including:
providing dual diameter discs having primary discs;
providing secondary discs that have a smaller perimeter size than the primary discs;
and
aligning the primary discs with secondary discs on adjacent shafts and aligning the secondary discs with primary discs on the adjacent shafts to form non-linear gaps between the dual diameter discs on adjacent shafts.

16. (New) An vacuum shaft assembly for a material separation screen,
comprising:
a shaft;
openings in the shaft that extend over at least a portion of an outside surface of the shaft;

a middle section in the shaft configured for receiving an air output flow that sucks air through the openings in the shaft to retain certain materials keeping those materials from falling through the material separation screen.

17. (New) The assembly according to claim 16 including a divider located inside the middle section for separating the middle section into at least two different chambers, a first chamber configured to receive the air output flow and a second chamber configured to receive an air input flow.

18. (New) The vacuum shaft assembly according to claim 17 wherein the holes located over the first chamber suck air for retaining the materials that pass over the shaft and the holes located over the second chamber blow air for dislodging the retained materials.

19. (New) The vacuum shaft assembly according to claim 16 including:
additional shafts aligned along a separation screen frame and configured to rotate and cause the materials to move along the material separation screen, the shafts configured with a shape and spacing so that substantially rigid materials move along the screen while non-rigid or semi-rigid materials slide down between adjacent shafts.